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10/568,174

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Paul White

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10/13/2009

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EXAMINER

SCHIFFMAN, BENJAMIN A

ART UNIT

PAPER NUMBER

1791

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|---------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/568,174 | Applicant(s) WHITE ET AL. | |
| | Examiner BENJAMIN SCHIFFMAN | Art Unit 1791 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>19 May 2009 and 10 February 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The papers submitted 19 May 2009, adding claims 23 and canceling claims 1-11 are acknowledged.

Election/Restrictions

2. Applicant's election of claims 12-22 in the reply filed on 15 May 2009 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
4. The following title is suggested: METHOD OF MOULDING A HINGE.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 12, 14-16, 20 and 21 rejected under 35 U.S.C. 102(b) as being anticipated by Terry (US 3,000,049).
7. Regarding claim 12, Terry discloses a method of molding a two part hinge including a first molded part and a second molded part connected together during molding to allow relative pivotal movement between the parts (**see col. 1 l. 10-35**) with

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the steps of: molding the first part; molding the second part over the first part after molding of the first part to form an interface between the second part and the first part at which said relative pivotal movement is allowed; and after molding of the second part, allowing the second part to shrink in a controlled manner to provide a predetermined frictional force at the interface between the first part and the second part in order to resist said relative pivotal movement **(see col. 2 l. 31-68)**.

8. Regarding claim 14, Terry discloses that the process creates hinges which have freedom of articulation without producing appreciable loss motion of looseness between the molded parts **(see col. 2 l. 65-68)**, analogous to a constant frictional force.

9. Regarding claim 15, Terry discloses that the interface between the two molded parts is annular **(see col. 2 l. 11-30)**.

10. Regarding claim 16, Terry discloses that the interfaces is formed such the friction is not constant **(see col. 2 l. 69 to col. 3 l. 15)**.

11. Regarding claim 20, Terry discloses that the first and the second part are molded with limiting means for limiting the relative pivotal movements, i.e. the leafs (1 and 7) **(see col. 2 l. 11-30)**.

12. Regarding claim 21, Terry discloses detent portions which resist pivotal movement between a first orientation **(see col. 2 l. 69 to col. 3 l. 15)**.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. Claims 13, 18, 19, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terry (US 3,000,049).

17. Terry discloses the a method of molding a hinge as described in the above 102(b) rejection of claim 12.

18. Regarding claim 13, although Terry does not explicitly disclose that the first part shrinks during the molding of the second portion, i.e. after molding the first portion;

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however, one of ordinary skill in the art would recognize that the plastic of the first part necessarily shrinks after it is molded, i.e. during molding of the second portion. Further the precise time of the shrinkage, during the second molding cycle would not have unexpected results to one skilled in the art.

19. Regarding claim 18 and 19, although Terry does not explicitly disclose that the first part is resilient after molding and is deformed at the interface during molding and shrinkage of said second part, the resilience of said first part affecting the frictional force in an equilibrium condition at said interface; however, one of ordinary skill in the art would recognize this would necessarily occur during the molding process. Furthermore one of skill in the art would not expected additional results without further enumerated process step limitations, other than results of performing the process as claimed.

20. Regarding claim 22, although Terry does not explicitly disclose that the first part is fixed and the second part is pivotable; however, one of ordinary skill in the art would recognize that the intended use of the hinge of Terry would be to preform the claimed task, further the specific molded portion of the hinge which is fixed and that which is pivotable would be an obvious reversal of parts, and would not obtain unexpected results **(see MPEP 2144.04)**.

21. Regarding claim 23, Terry discloses a method of molding a two part hinge including a first molded part and a second molded part connected together during molding to allow relative pivotal movement between the parts **(see col. 1 l. 10-35)** with the steps of: molding the first part; molding the second part over the first part after molding of the first part to form an interface between the second part and the first part at

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which said relative pivotal movement is allowed; and after molding of the second part, allowing the second part to shrink in a controlled manner to provide a predetermined frictional force at the interface between the first part and the second part in order to resist said relative pivotal movement (**see col. 2 l. 31-68**). Further although Terry does not explicitly disclose that the first part shrinks during the molding of the second portion, i.e. after molding the first portion; however, one of ordinary skill in the art would recognize that the plastic of the first part necessarily shrinks after it is molded, i.e. during molding of the second portion. Further the precise time of the shrinkage, during the second molding cycle would not have unexpected results to one skilled in the art.

22. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terry (US 3,000,049) in view of Magnenat (US 2,342,477)

23. Terry does not appear to expressly disclose that the interface region is elliptical.

24. However, Magnenat discloses a hinge with an elliptical interface region (**see p. 1 col. 1 l. 16-23**).

25. At the time of invention, it would have been *prima facie* obvious to one of ordinary skill in the art to modify the hinge of Terry to include elliptical interface of Magnenat, in order to form a biased hinge which has a more preferred position, as is well known in the art of hinges.

Conclusion

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN SCHIFFMAN whose telephone number is

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(571)270-7626. The examiner can normally be reached on Monday through Thursday from 9AM until 4PM.

27. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHRISTINA JOHNSON can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

28. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BENJAMIN SCHIFFMAN/
Examiner, Art Unit 1791

/Matthew J. Daniels/
Primary Examiner, Art Unit 1791
10/9/09